Aug. 3, 1943. C. A. KERR 2,325,686

CORE FOR CONCRETE MOLD

Filed Dec. 14, 1942 2 Sheets-Sheet 1

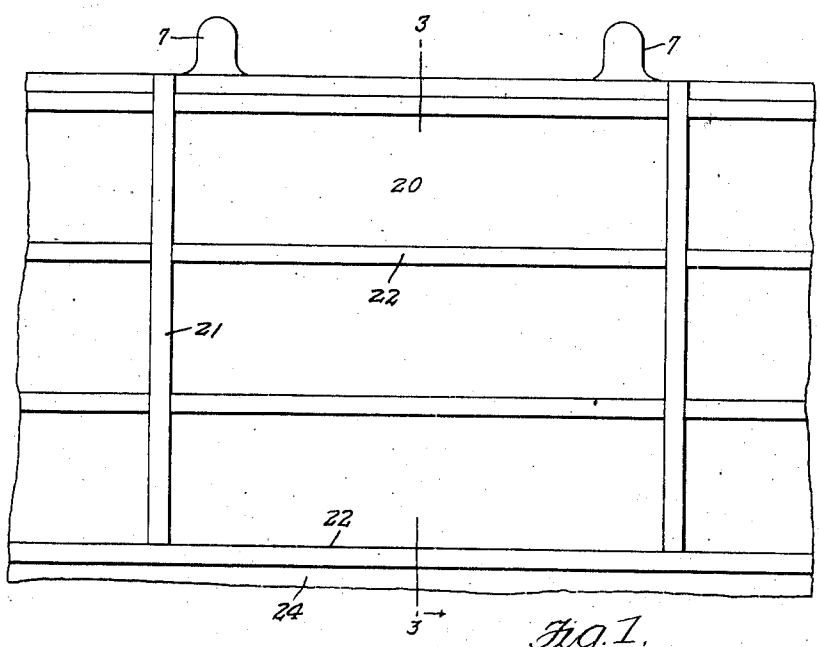


Fig. 1.

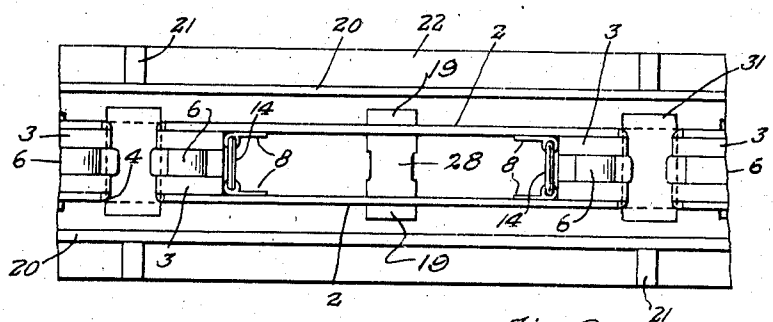


Fig. 2.

Fig. 6.

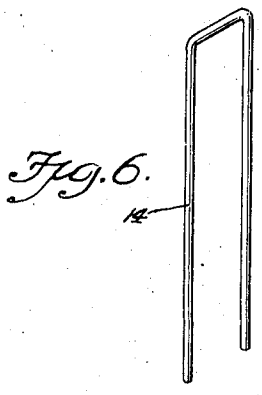


Fig. 8

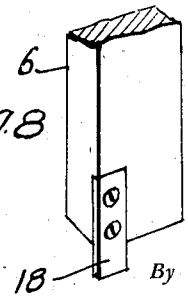
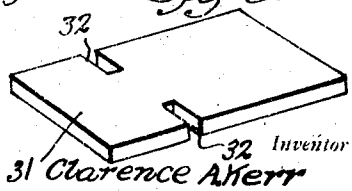


Fig. 9.



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Aug. 3, 1943. C. A. KERR 2,325,686

CORE FOR CONCRETE MOLD

Filed Dec. 14, 1942 2 Sheets-Sheet 2

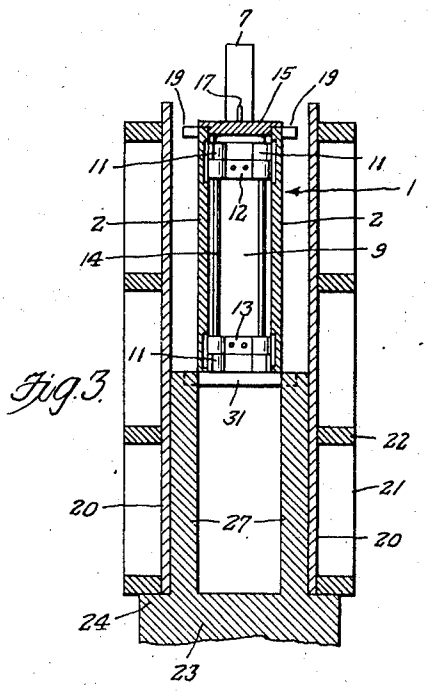


Fig. 3.

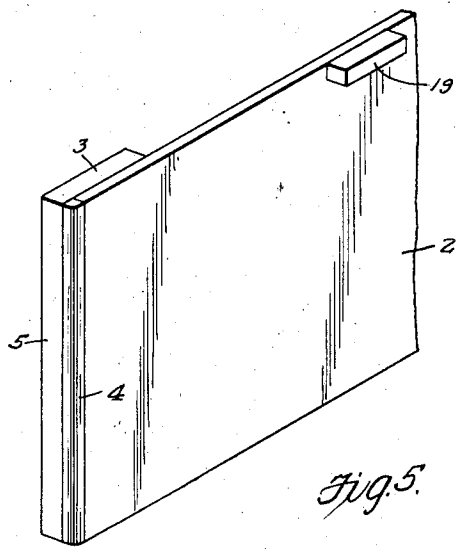
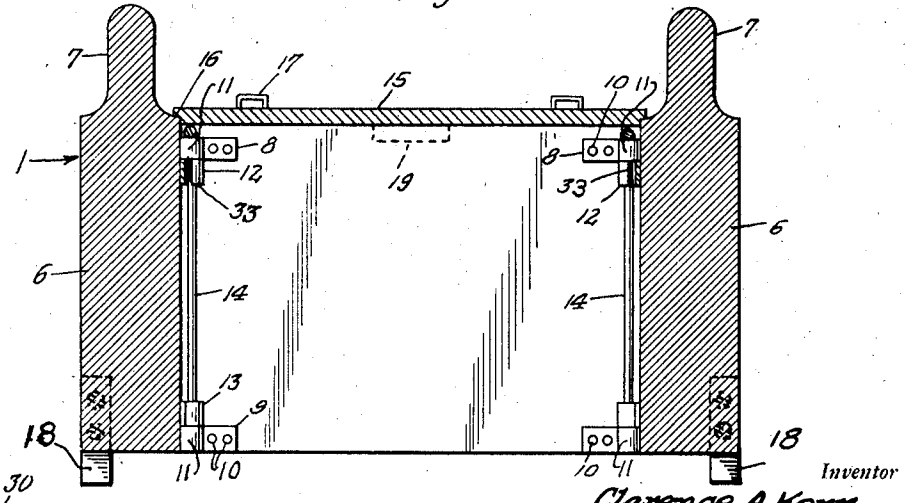


Fig. 5.

Fig. 4.



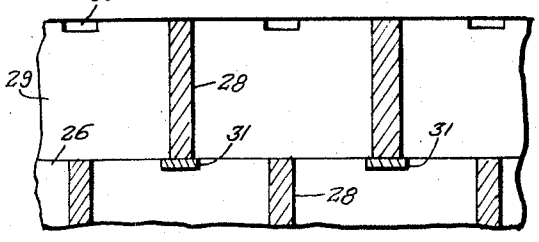


Fig. 7.

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CORE FOR CONCRETE MOLDS

Clarence A. Kerr, Kent, Wash.

Application December 14, 1942, Serial No. 468,967

4 Claims. (Cl. 25—128)

My invention relates to improvements in sectional cores for use in concrete forms in erecting cellular concrete walls and the like.

The invention is designed with the principal object in view of providing a simply constructed, inexpensive, strong device of the character indicated which is especially adapted for quick and easy conditioning for use and for disassembly and removal from the wall after the concrete has set.

Other and subordinate objects are also comprehended by my invention, all of which, together with the precise nature of my improvements, will be readily understood when the succeeding description and claims are read with reference to the drawings accompanying and forming part of this specification.

In said drawings:

Figure 1 is a fragmentary view in side elevation illustrating my improvements,

Figure 2 is a view in top plan,

Figure 3 is a view in vertical transverse section taken on the line 3—3 of Figure 1,

Figure 4 is a view in longitudinal section of the core,

Figure 5 is a fragmentary view in perspective of one of the side wall members of the core,

Figure 6 is a view in perspective of one of the fasteners,

Figure 7 is a fragmentary view in longitudinal vertical section of a cellular wall formed in the practice of my invention,

Figure 8 is a fragmentary view in perspective of one of the spacer bars, and

Figure 9 is a similar view of one of the bridge bars.

Referring to the drawings by numerals, the core 1 of my invention comprises a pair of opposed, spaced apart, side wall members 2, preferably of elongated, rectangular form and light strong material, such as plyboard, and each having a pair of flat cleats 3 on the inner face thereof suitably secured thereto and preferably of wood.

The cleats 3 extend completely across said members 2 parallel with the ends thereof and project slightly beyond said ends, as best shown in Figure 5. Half round, wood filler strips 4 are suitably secured to the projecting portions of the cleats 3, rounded sides outermost, and fitted flush against the ends of the members 2 so that each member 2 is provided at its ends with rounded transverse corners 5, facilitating removal of the core from the concrete.

A pair of flat, preferably wooden, spacer bars 6 are interposed flatwise between the cleats 3 at opposite ends of the members 2, respectively, parallel with said ends and with lower ends flush with the bottom edges of the members 2, and one side edge projecting slightly outwardly from said end to form keys for maintaining the core upright in poured concrete. The upper ends of the spacer bars 6 extend above the upper edges of the members 2 and are reduced and shaped to form handles 7 for use in removing said bars.

Means are provided for detachably connecting the side wall members 2 to the spacer bars 6 flat against the same comprising a pair of upper and lower strap metal keepers 8, 9 adjacent each end of each side wall member 2. The keepers 8, 9 are secured to the inner side faces of said members 2, as at 10, the upper keepers 8 being located below the upper edges of the members 2 a distance suitable for a purpose presently seen, and the lower keepers 9 being located at the lower edges of said members 2. As best shown in Figures 3 and 4, the keepers 8, 9 comprise end barrels 11 axially aligned transversely of said members 2 in each pair. The spacer bars 6 are provided on the inner side edges thereof with upper and lower pairs of keepers 12, 13 similar to keepers 8, 9 and fitting in between the upper and lower pairs of keepers 8, 9 at the appropriate ends of said members 2 in axial alignment with the barrels 11. A pair of staple-like fastener rods 14 are removably extended through the pairs of keepers 8, 9 of said members 2 at opposite ends of said keepers, respectively, and through the pairs of keepers 12, 13 on the spacer bars 9, respectively.

A flat cover 15, of elongated rectangular form and any suitable material, and having rabbeted bottom edges 16 is set into the top of the core 1 between the side wall members 2 and the spacer bars 9. The cover 15 may be provided with suitable bail-like handles 17 for use in removing the same. Each spacer bar 6 is provided at its lower end and at an outer side corner thereof with a keeper lug 18 depending below said bottom and secured in place by screws. Each side wall member 2 is provided at its upper edge, in the transverse center thereof, with a short lip member 19 extending outwardly laterally from the outer face thereof parallel with said edge. The purpose of the lugs 18 and lip members 19 will presently be explained.

The described core 1 is designed to be used, in upstanding position, between concrete side forms 20, of plywood preferably, reinforced by vertical and horizontal cleats 21, 22 trans-

versely rectangular in form and secured in anv suitable manner edgewise to the outer faces of the forms, for instance, as shown in Figures 1, 2 and 3. The side forms **20** are suitably arranged in starting a wall **23**, as shown in Figure 3, on the usual footing **24**, as is usual. The cores **1** are interposed between the side forms **20** and centered between the same in spaced relation thereto and in horizontal rows with the cores in the row spaced apart, endwise, as shown, for instance, in Figure 2, so that when concrete is poured in, a horizontal row of cells **26**, such as shown in Figures 6 and 7, is formed with side walls **27** and vertical transverse walls **28**. Succeeding rows of similar cells, as at **29**, are built up in the same manner but with the cells staggered horizontally relative to the cells in a subjacent row. When the concrete is poured in flush with the top of a core **1**, the lip members **19** mold in the upper edge and vertical center of the side wall of each cell, for instance **27**, a rectangular notch, as shown at **30**. Flat bridge bars **31** are set into opposite notches **30** which block escape of concrete being poured between the ends of adjacent cores **1** and from falling into subjacent cells **26**, **29** and further provide a base for forming the transverse walls **28**. The lugs **18** may be entered into edge keeper notches **32** in the bridge bars to serve as anchors for stabilizing the cores **1** in the side walls **27** during pouring of the concrete and thereby prevent the cores from shifting laterally.

By removing the cover **15** and withdrawing the fastener rods **14**, the side wall members **2** may be easily disconnected from the spacer bars **9**. The spacer bars **9** may be removed from between the side wall members **2** by canting the same to displace the upper keepers **12** from beneath the upper keepers **8**, and then hooking onto the upper keepers **12** with a suitable tool, not shown, and pulling said bars **9** upwardly. After the spacer bars **9** are removed, the side wall members **2** may be removed as desired. The barrels of the upper keepers **12** are slotted, as at **33**, to facilitate entering a fishing or hooking tool therein.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly, the invention, as described, is susceptible of modification without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the appended claims.

What I claim is:

1. A core for use in upright position between side forms comprising a pair of opposed rectangular side wall members spaced apart laterally, and having upright ends, transverse cleats on the inner faces of said members extending along each end of the members and providing opposed pairs at each end of the core, a pair of flat spacer bars interposed between the pairs of cleats, respectively, parallel therewith and extending above the upper edges of said members to provide handles, and means intermediate the side members for detachably connecting the same to said spacer bars.

2. A core for use in upright position between side forms comprising a pair of opposed rectangular side wall members spaced apart laterally, and having upright ends, transverse cleats on the inner faces of said members extending along each end of the members and providing opposed pairs at each end of the core, a pair of flat spacer bars interposed between the pairs of cleats, respectively, parallel therewith and extending above the upper edges of said members to provide handles, and means intermediate the side members for detachably connecting the same to said spacer bars, said means comprising end pairs of upper and lower keeper barrels on said members, respectively, pairs of upper and lower similar keepers on the spacer bars fitting in between the pairs of end keeper barrels, respectively, and a pair of staple-like fastener rods extended through the end pairs of keepers, respectively, and the keepers on the spacer bars.

3. A core for use in upright position between side forms comprising a pair of opposed rectangular side wall members spaced apart laterally, and having upright ends, transverse cleats on the inner faces of said members extending along each end of the members and providing opposed pairs at each end of the core, a pair of flat spacer bars interposed between the pairs of cleats, respectively, parallel therewith and extending above the upper edges of said members to provide handles, and means intermediate the side members for detachably connecting the same to said spacer bars, said side wall members being provided, respectively, at the upper edge thereof and in the vertical center of the same with a lateral outstanding lip member for molding a notch in concrete.

4. A core for use in upright position between side forms comprising a pair of opposed rectangular side wall members spaced apart laterally, and having upright ends, transverse cleats on the inner faces of said members extending along each end of the members and providing opposed pairs at each end of the core, a pair of flat spacer bars interposed between the pairs of cleats, respectively, parallel therewith and extending above the upper edges of said members to provide handles, and means intermediate the side members for detachably connecting the same to said spacer bars, said spacer bars having side edges extending outwardly beyond the ends of the side wall members to form keys for holding in concrete.

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